

Application No. 10/031,136
Amendment Under 37 CFR § 1.111
Reply to Office Action of October 1, 2003

CONDITIONAL PETITION FOR EXTENSION OF TIME

If entry and consideration of the amendments above requires an extension of time, Applicants respectfully request that this be considered a petition therefor. The Assistant Commissioner is authorized to charge any fee(s) due in this connection to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fees, or credit any excess, to Deposit Account No. 14-1263.

REMARKS/ARGUMENTS

At the outset, Applicants acknowledge with appreciation the Examiner's indication that claims 4, 7-9, 11 and 12 have been allowed.

The Examiner requested Applicants to amend the specification to provide a statement regarding Applicants' claim for priority. This has now been done.

Claims 1 and 2 were rejected under 35 USC § 102(b) as being anticipated by Voigt et al. ("Voigt"), U.S. Patent No. 4,898,645. In response, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

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Applicants would remind the Examiner that anticipation requires that each and every element as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference, and, further, if the Examiner relies on a theory of inherency as to any particular element, then the extrinsic evidence must make clear that such element is *necessarily* present in the thing described in the reference, and the presence of such element therein would be so recognized by persons skilled in the art. *In re Robertson*, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). Further, inherency is not established by probabilities or possibilities, and the mere fact that a property may result from a given circumstances is not sufficient; instead it must be shown that such property *necessarily* inheres in the thing described in the reference. *Id.*

According to the Examiner, Voigt discloses a process for preparing an aliphatic fluorocarbon comprising pyrolyzing an aliphatic fluorocarbon compound to form a reactive aliphatic fluorocarbon intermediate which reacts with another reactive intermediate to form the desired aliphatic fluorocarbon products. However, Applicants point out that instant claims 1 and 2 require in step c) that the "desired aliphatic fluorocarbon product [be separated] from any undesired aliphatic fluorocarbon products;" and in step d) that "any undesired aliphatic fluorocarbon products [be recycled] to step a)." The Examiner has not made out a case that either of these steps c) and d) are described in Voigt. Therefore, as a matter of law, the Examiner has not made out a *prima facie* case of anticipation.

During the international phase prosecution of this application, the Authorized Office

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found claim 1 to be lacking novelty in view of Voigt. According to the Authorized Officer, “Voigt et al disclose processes of preparing tetrafluoroethane (TFE) by pyrolysis of fluorocarbons, followed by separation of TFE and *recycling residual starting material* into the first step (see column 1, lines 11-45).” However, Applicants point out that this does not anticipate instant claim 1. Instant claim 1 requires the recycle of “any *undesired* aliphatic fluorocarbon products.” Certainly, a *starting material* does not meet this definition. There can be no confusion between a starting material and an undesired product and even more distinguishing is that these products are undesirable whereas starting materials are desirable in the chemical use sense.

In short, the only thing Voigt has in common with instant claim 1 is that both items are recycled. Recycling is an ancient process step which is widely used for economic and ecological reasons. The essence of the pertinent portion of instant claim 1 is the recovery of otherwise useless products in which recycling is a convenient pathway to achieve the goals of the present invention. This is not taught or suggested by Voigt.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw this rejection. An early notice that this rejection has been reconsidered and withdrawn is earnestly solicited.

Claims 5 and 10 were rejected under 35 USC § 102(b) as being anticipated by Difelice et al. (“Difelice”), *Combust. Sci. and Tech.*, 116-117: 5-30 (1996). In response, Applicants

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respectfully request that the Examiner reconsider and withdraw this rejection.

For the present, claims 5 and 10 have been amended to be dependent on claim 1. Therefore, these amended claims incorporate by reference the steps a)-d) of claim 1. All of these steps are not described in Difclice. Consequently, Difelice cannot anticipate amended claims 5 and 10.

In view of the foregoing, Applicants respectfully request that the Examiner reconsider and withdraw this rejection. An early notice that this rejection has been reconsidered and withdrawn is earnestly solicited.

Claims 3 and 6 were rejected under 35 USC § 103(a) as being obvious over Salmon et al. ("Salmon"), Chem. Phys. Processes Combust., 507-510 (1996). In response, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

With respect to claim 3, Applicants respectfully point out that claim 3 requires that TFE in greater than 50% yield be prepared by pyrolyzing R133a at a temperature below about 725°C (= 998 K). Figure 1 in Salmon on page 508 shows, as explained in the next to last paragraph on page 507, that virtually no TFE is produced at a temperature below about 725°C, as instantly claimed, and that the TFE yield does not reach 50% until about 1050 K (= 777°C.) Consequently, contrary to the Examiner's finding, Salmon does not, in fact, suggest that the yields of TFE at the temperatures required by instant claim 3 reasonably appear to be greater than

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50%. Quite the contrary, the yields appear to be very much below 50%. Therefore, Salmon does not render *prima facie* obvious the process of instant claim 3. No person having ordinary skill in the art, given Salmon, could reasonably expect to be successful in obtaining TFE in greater than 50% yield by pyrolyzing R133a at a temperature below about 725°C.

With respect to claim 6, Applicants respectfully point out that claim 6 requires that CDFE be prepared by pyrolyzing R 124 at a temperature about 700°C and *at less than 10% conversion*.

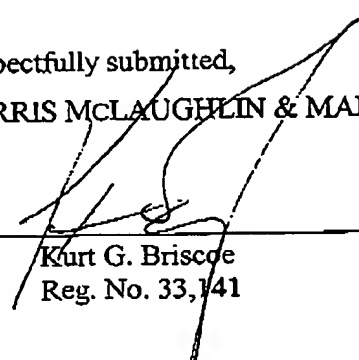
The Examiner concedes that Salmon's process proceeded from a lowest conversion of 10%. There is nothing in Salmon that teaches or suggests that CDFE could be successfully prepared by pyrolyzing R 124 at 700°C at less than 10% conversion. The Examiner cites no secondary reference to suggest this possibility. Consequently, Applicants submit that the Examiner has not made out a *prima facie* case of the obviousness of claim 6.

In view of the foregoing, Applicants submit that the Examiner would be fully justified to reconsider and to withdraw this rejection. An early notice that this rejection has been reconsidered and withdrawn is earnestly solicited.

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Early and favorable action is earnestly solicited.

Respectfully submitted,
NORRIS MCLAUGHLIN & MARCUS, P.A.

By 
Kurt G. Briscoe
Reg. No. 33,141

220 East 42nd Street - 30th Floor
New York, New York 10017
Phone: (212) 808-0700
Fax: (212) 808-0700

CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment and attachments (11 pages total) are being facsimile transmitted to the United States Patent and Trademark Office on the date indicated below:

Date: April 1, 2004

By 
Jennifer Archer